

IN THE CLAIMS:

Please cancel claim 64 and amend the claims as follows:

31
sub 51
41. A distributed hosting framework operative in a computer network in which users of client machines connect to a first server, the framework comprising:

a routine for modifying at least one embedded object URL of a web page to include a hostname prepended to a domain name and path;

a set of repeater servers, distinct from the first server, for hosting at least some of the embedded objects of web pages that are normally hosted by the first server; and

a repeater selector mechanism constructed and adapted to identify, for a particular client machine, an appropriate repeater server from the set of repeater servers;

wherein in response to requests for the web page, generated by the client machines, the web page including the modified embedded object URL is served from the first server and the embedded object identified by the modified embedded object URL is served from a given one of the repeater servers as identified by the repeater selector mechanism.

sub 51
45. The hosting framework as described in claim 41 wherein the repeater selector mechanism includes a network map for use in directing a request for the embedded object generated by a client.

48. A method of serving a page supported at an origin server, the page comprising a markup language base document having associated therewith a set of embedded objects, at least one embedded object identified by a URL, the method comprising:

rewriting the URL of an embedded object to generate a modified URL, the modified URL including a new hostname prepended to an original hostname, wherein the original hostname is maintained as part of the modified URL for use in retrieving the embedded object whenever a cached copy of the embedded object is not available;

in response to a request to serve the page received at the origin server, serving the page with the modified URL;

attempting to serve the embedded object from a second server other than origin server, as identified by the new hostname; and

if the cached copy of the embedded object is not available from the second server, obtaining the embedded object from the origin server.

49. A method of serving a page and an associated page object, wherein the page is stored on a first server and copies of the page object are stored on a set of servers distinct from the first server, the method comprising:

(a) modifying a URL for the page object to include a hostname prepended to a content provider-supplied domain name and path;

(b) serving the page from the first server with the modified URL;

(c) responsive to a browser query to resolve the hostname, identifying a given one of the set of servers from which the object may be retrieved; and

(d) returning to the browser an address of the identified server to enable the browser to attempt to retrieve the object from that server.

52. The method as described in claim 51 wherein the identified server is selected from a set of repeater servers based on data identifying a requesting user's location and data identifying current costs between a group containing the requesting user and servers in the set of repeater servers.

sub-III
51
F4
51
sub-III
51
55. The method as described in claim 54 wherein an identified server is selected from a set of repeater servers based on data identifying a requesting user's location.

56. The method as described in claim 55 wherein an identified server is selected from a set of repeater servers based data identifying a requesting user's location and on data identifying current costs between a group containing the requesting user and the set of repeater servers.

sub-III
51
59. The method as described in claim 57 wherein the modifying of the at least one embedded object URL takes place in response to the request for the page.

sub-III
51
F6
51
60. The method as described in claim 57 further comprising:
identifying a subset of servers that may be available to serve the embedded object based on a location of the client machine and data identifying current costs between a group containing the requesting client machine and a set of repeater servers: and
identifying the server from the subset of servers.

sub-III
51
61. A content delivery method, comprising:
distributing a set of page objects across a network of repeater servers managed by a domain other than an origin server domain;
for a given page normally served from the origin server domain, tagging at least some of the embedded objects of the page so that requests for the objects resolve to the repeater server domain instead of the origin server domain; and
in response to a client request for an embedded object of the page:
returning to the client an address of a given one of the repeater servers within the repeater domain that is likely to host the embedded object and that is not overloaded.

51
sub 66
62. A content delivery method, comprising:

tagging an embedded object in a page to resolve to a second domain other than an origin server domain by prepending data to a URL supplied by the origin server to generate a different resource locator;

serving the page with the different resource locator from the origin server;

resolving the different resource locator to identify a server in the second domain; and

serving the embedded object from the identified server.

63. The method as described in claim 62 wherein the identified server is selected from a set of repeater servers based on a function of a requesting user's location and on data identifying current costs between a group containing the requesting user and the repeater servers.

67. A method for Internet content delivery, comprising:

at an origin server, modifying at least one embedded object URL of a page to include a hostname prepended to a domain name and a path normally used to retrieve the embedded object;

responsive to a request for the page issued from a client, serving the page with the modified embedded object URL to the client from the origin server;

responsive to a request for the embedded object, resolving the hostname to an address of a repeater server, other than the origin server, that is likely to host the embedded object; and

attempting to serve the embedded object to the client from the repeater server.

Please add the following new claims 70-86.

70. (New) A method of serving a page and an associated embedded page object, wherein the page is stored on an origin server and copies of the page object are stored on at least one of a set of repeater servers distinct from the origin server, wherein each repeater server replicates some or all of the information available on the origin server, the method comprising:

- (a) causing the embedded page object to resolve to a server in the repeater server domain instead of to the origin server;
- (b) serving the page from the origin server;
- (c) responsive to a browser request for the page object, identifying a given repeater server from the set of repeater servers from which the object may be retrieved; and
- (d) returning to the browser an address of the identified repeater server to enable the browser to attempt to retrieve the object from the identified repeater server at the address.

71. (New) A content delivery method operable in an Internet framework which includes an origin server and at least one set of repeater servers distinct from the origin server, wherein each repeater server replicates some or all of the information available on the origin server, the content delivery method comprising:

- (a) causing an embedded object in a web page to resolve to a repeater server instead of the origin server; and
- (b) responsive to a request from a client for the web page,
 - (b1) serving the web page from the origin server; and
 - (b2) serving the embedded object from the repeater server.

72. (New) A method as in claim 71 wherein the repeater server is selected based on data identifying the requesting client's location and on data identifying current costs between a group containing the requesting client and the repeater servers.

73. (New) A content delivery method, in a system in which a network of repeater servers replicates some or all of the information available on at least one origin server distinct from the repeater servers, the method comprising:

causing an embedded object in a page to resolve to identify a repeater server instead of to an origin server;

serving the page from an origin server;

resolving a URL of the embedded object to identify a repeater server in the network of repeater servers; and

serving the embedded object from the identified repeater server.

74. (New) An Internet method of serving an HTML page supported at an origin server, the page comprising an HTML base document having associated therewith a set of embedded objects, the method comprising:

causing at least one embedded object to resolve to a repeater server instead of the origin server,

in response to a request to serve the page received at the origin server, serving the page;

attempting to serve the embedded object from a repeater server; and

if a cached copy of the embedded object is not available from the repeater server, obtaining the embedded object from the origin server.

75. (New) A method as in claim 51 wherein the requesting client is a member of a group based on the client's location, and wherein the identified server is selected from a set of repeater servers based on a relative cost of transmitting a file between the repeater and a member of the group.

76. (New) A method as in claim 48 wherein the rewriting of the URL is in response to a client's request to serve the page.

77. (New) A method as in claim 49 wherein the modifying of the URL for the page object is performed in response to a request for the page.

78. (New) A method as in claim 51 wherein the tagging of the embedded object in the page takes place in response to a request for the page.

79. (New) In a computer network in which client computers request HTML resources from origin servers, and wherein a set of repeater servers, distinct from the origin server, host at least some of the embedded objects of web pages that are normally hosted by the origin server:

a routine constructed and adapted to cause at least one embedded object URL of a web page to be served from one of the repeater servers instead of from the origin server,

wherein in response to requests for the web page, generated by the client computers, the web page is served from the origin server and the embedded object is served from a given one of the repeater servers.

80. (New) A method of serving a page and an associated embedded page object, wherein the page is stored on an origin server and copies of the page object are stored on at least some of a set of repeater servers distinct from the origin server, wherein each repeater server replicates some or all of the information available on the origin server, the method comprising:

causing the embedded page object to resolve to a server in the repeater server domain instead of to the origin server; and

in response to a request for the page from a client's browser:

serving the page from the origin server;

identifying a given repeater server from the set of repeater servers from which the object may be retrieved; and

returning to the browser an address of the identified repeater server to enable the browser to attempt to retrieve the object from that server.

81. (New) A method of serving a page supported at an origin server, the page comprising a markup language base document having associated therewith a set of embedded objects, at least one embedded object identified by a URL, the method comprising:

in response to a request to serve the page received at the origin server:

- (a) rewriting the URL of an embedded object to generate a modified URL, the modified URL including a new hostname prepended to an original hostname, wherein the original hostname is maintained as part of the modified URL for use in retrieving the embedded object whenever a cached copy of the embedded object is not available;
- (b) serving the page with the modified URL;
- (c) attempting to serve the embedded object from a second server other than origin server, as identified by the new hostname; and
- (d) if the cached copy of the embedded object is not available from the second server, attempting to obtain the embedded object from the origin server.

82. (New) A content delivery service comprising:

- (a) causing a set of page objects to be replicated across a wide area network of servers managed by a domain other than an origin server domain;
- (b) for a given page normally served from the origin server domain, causing the embedded objects of the page to resolve to the domain instead of the origin server domain; and
- (c) responsive to a request for the given page received at the origin server domain,
 - (c1) serving the given page from the origin server domain; and
 - (c2) serving at least one embedded object of the given page from a given server in the domain instead of from the origin server domain.

83. (New) A content delivery method comprising:

- (a) causing a set of page objects to be replicated across a network of repeater servers;
- (b) for a given page that is normally served from an origin server, modifying at least one embedded object of the page so that requests for the page object resolve to one of the repeater servers instead of to the origin server;
- (c) in response to a request for the given page received at the origin server,
 - (c1) serving the given page from the origin server; and
 - (c2) causing at least one embedded object of the given page to be served from a repeater server instead of from the origin server.

84. (New). A framework as in claim 41 wherein the repeater selector mechanism is co-located with the first server.

85. (New) A framework as in claim 41 wherein the repeater selector mechanism is constructed and adapted to identify the appropriate repeater server based on a load on the repeater servers and on a measure of network distance from the client to the various repeater servers.

86. (New) A distributed hosting framework operative in a computer network in which users of client machines connect to a first server, the framework comprising:

a routine for modifying at least one embedded object URL of a web page to include a hostname prepended to a domain name and path;

a set of repeater servers, distinct from the first server, for hosting at least some of the embedded objects of web pages that are normally hosted by the first server; and

a plurality of repeater selector mechanisms, each constructed and adapted to identify, for a particular client machine, a server from a set of repeater servers;

wherein in response to requests for the web page, generated by the client machines, the web page including the modified embedded object URL is served from the first server and the embedded object identified by the modified embedded object URL is served from a given one of the repeater servers as identified by at least one of the repeater selector mechanisms.--